U.S. Department of the Interior

Onshore elevation data from National Oceanic and Atmospheric Administration

http://ned.usgs.gov/). California's State Waters limit from NOAA Office of Coast

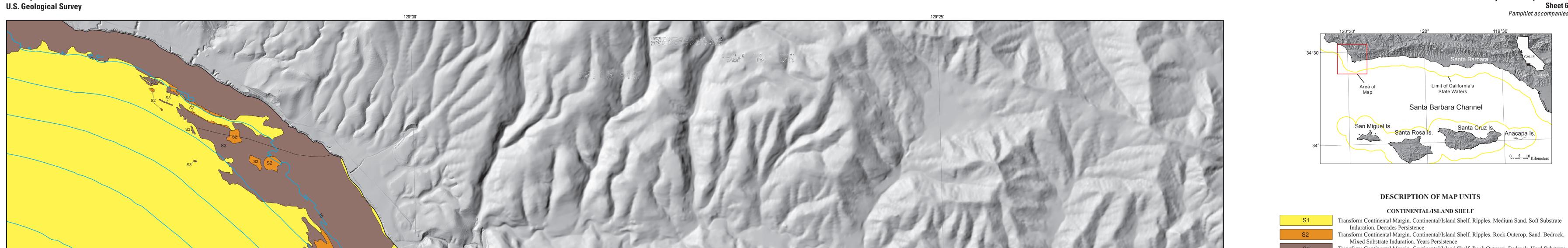
(NOAA) Office for Coastal Management's Digital Coast (available at

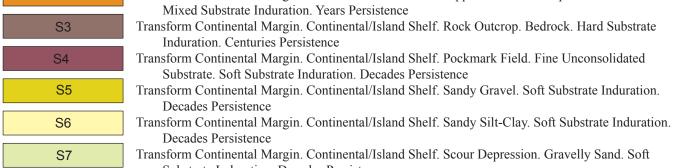
Geological Survey's National Elevation Dataset (available at

Universal Transverse Mercator projection, Zone 10N

NOT INTENDED FOR NAVIGATIONAL USE

Open-File Report 2018–1024 Pamphlet accompanies map





Substrate Induration. Decades Persistence Transform Continental Margin. Continental/Island Shelf. Sediment Wave Field. Slightly Gravelly Sand. Soft Substrate Induration. Years Persistence Transform Continental Margin. Continental/Island Shelf. Tar Mound. Rock Substrate. Hard Substrate Induration. Centuries Persistence Transform Continental Margin. Continental/Island Shelf. Wreck. Centuries Persistence

Transform Continental Margin. Continental/Island Shelf. Apron. Gravelly Sand. Soft Substrate

Induration. Decades Persistence CONTINENTAL SLOPE Transform Continental Margin. Continental/Island Slope. Runnel/Rill. Silty Sand. Soft Substrate

Induration. Decades Persistence Transform Continental Margin. Continental/Island Slope. Sandy Silt-Clay. Soft Substrate Induration.

## **EXPLANATION OF MAP SYMBOLS** Contact

Area of "no data"—Areas beyond 3-nautical-mile limit of California's State Waters were not mapped as part of California Seafloor Mapping Program 3-nautical-mile limit of California's State Waters

20 Bathymetric contour (in meters)—Derived from modified 2-m-resolution bathymetry grid. Contour

## **DISCUSSION**

This map shows physical marine benthic habitats in the Offshore of Point Conception map area. Marine benthic habitats represent a particular type of water quality, substrate, geomorphology, seafloor process, or any other attribute that may provide a habitat for a specific species or an assemblage of organisms. Marine benthic habitats are classified using the Coastal and Marine Ecological Classification Standard (CMECS), developed by representatives from a consortium of federal agencies. CMECS is the Federal standard for marine habitat characterization (available at https://www.fgdc.gov/standards/projects/FGDC-standardsprojects/cmecs-folder/CMECS\_Version\_06-2012\_FINAL.pdf). The standard provides an ecologically relevant structure for biologic-, geologic-, chemical-, and physical-habitat attributes.

This map illustrates the geoform and substrate components of the standard and their distribution in the Offshore of Point Conception map area. Geoform components describe the major geomorphic and structural characteristics of the coast and seafloor (that is, the tectonic and physiographic settings and the geological, biogenic, and anthropogenic features). This map was derived from the geologic and geomorphic map of the seafloor (see sheet 9) by translation of the map-unit description into the best-fit values of the CMECS classes. The map also includes a temporal attribute for each unit that indicates time period of persistence, as well as an induration attribute that allows resymbolization of the data-catalog shapefile into a simple map of hard-mixed-soft attributes of Essential Fish Habitat assessment (Greene and Bizzarro, 2003). Table 1 shows the total area (in square meters) of each CMECS class mapped.

## REFERENCE CITED

Greene, H.G., and Bizzarro, J.J., 2003, Essential fish habitat characterization and mapping of the California continental margin: Final Report to Pacific States Marine Fisheries Commission, CFDA #11-454, 14 p., available at http://marinehabitat.psmfc.org/ files/source\_docs/EFH\_report\_with\_Appendices.pdf.

Map-unit label	Area, in square meters	
S1	79,521,877	Table 1. Total area, in square mete marine benthic habitat class from and Marine Ecological Classificati Standard mapped in Offshore of Po Conception map area.
S2	7,569,000	
S3	23,757,954	
S4	4,200,360	
S5	233,981	
S6	11,751,758	
S7	253,503	
S8	1,152,962	
S10	2,591,275	
S12	3,496	
S14	77,285	
L1	585,047	
L2	5,385,351	

eters, of each

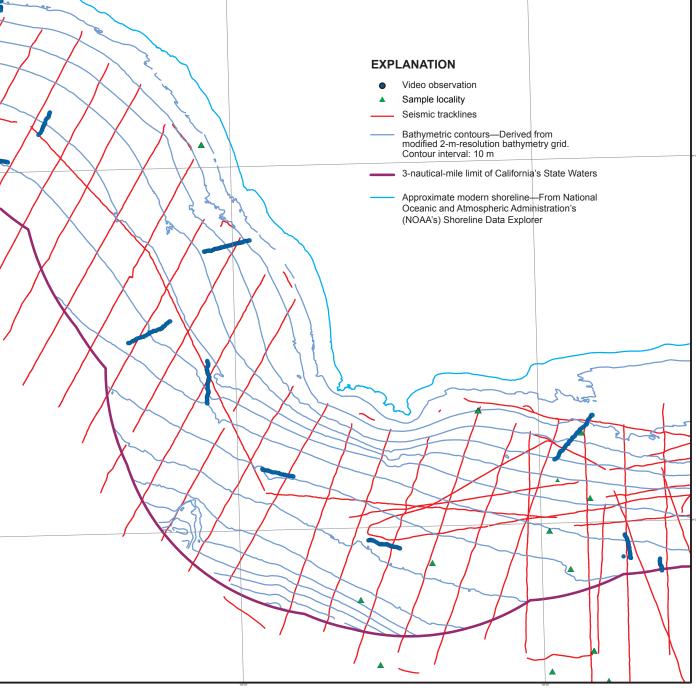


Figure 1. Map showing video-observation locations, sample localities, and seismic tracklines for Offshore of Point Conception map area.







Marine Benthic Habitats from the Coastal and Marine Ecological Classification Standard, Offshore of Point Conception Map Area, California Guy R. Cochrane, Stephen R. Hartwell, and Samuel Y. Johnson

BATHYMETRIC CONTOUR INTERVAL 10 METERS

ONE MILE = 0.869 NAUTICAL MILES

**Point Conception** 

Marine benthic habitats from Coastal and Marine Ecological

Classification Standard mapped by Guy R. Cochrane, Stephen R. Hartwell, and Samuel Y. Johnson, 2016. Bathymetric contours

GIS database and digital cartography by Guy R. Cochrane and

Manuscript approved for publication February 13, 2018

by Peter Dartnell, 2016

Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and proportions may not be true on plots of this map. For sale by U.S. Geological Survey, Information Services, Box 25286, Federal Center, Denver, CO 80225, 1–888–ASK–USGS Digital files available at https://doi.org/10.3133/ofr20181024 Suggested Citation: Cochrane, G.R., Hartwell, S.R., and Johnson, S.Y., 2018, Marine benthic habitats from the Coastal and Marine Ecological Classification Standard Marine Benthic Habitats, Offshore of Point Conception map area, California, sheet 6 in Johnson, S.Y., Dartnell, P., Cochrane, G.R., Hartwell, S.R., Golden, N.E., Kvitek, R.G., and Davenport, C.W. (S.Y. Johnson and S.A. Cochran, eds.),